## Franchise Tax Board

# **ANALYSIS OF AMENDED BILL**

Author: Briggs	Analyst:	Jeff Garnier	Bill Number:	AB 813		
Related Bills: See Legislative History	_ Telephone:	845-5322	Amendment Dates:	2/22/01 & 4/16/01		
	Attorney:	Patrick Kusiak	Sponsor:			
SUBJECT: Hot Water Recirculating System Credit						
SUMMARY						
This bill would provide a credit equal to 100% of the costs of a hot water recirculating system.						
SUMMARY OF AMENDMENTS						
The April 16, 2001, amendments added a December 1, 2006 repeal date to the credit.						
This is the department's first analysis of the bill.						
PURPOSE OF THE BILL						
The author's staff has indicated the purpose of the bill is to encourage water and energy conservation in the state.						
EFFECTIVE/OPERATIVE DATE						
As a tax levy this bill would be effective upon enactment and operative for taxable years beginning on or after January 1, 2001 and before January 1, 2005.						
POSITION						
Pending.						
Summary of Suggested Amendments						
Department staff is available to resolve the issues discussed in the <a href="IMPLEMENTATION">IMPLEMENTATION</a> CONSIDERATIONS and <a href="TECHNICAL CONSIDERATIONS">TECHNICAL CONSIDERATIONS</a> discussed below.						
ANALYSIS						
FEDERAL/STATE LAW						
Federal and state tax laws contain various credits to encourage certain taxpayer behavior. Several of these credits encourage conservation and or preservation, such as the state rice straw credit and natural heritage preservation credit.						
Board Position: S NA		NP	Department Director	Date		
SA O N OUA		NAR	Alan Hunter for GHG	04/26/01		
LSB TEMPLATE (rev. 6-98)				05/01/01 9:17 AM		

### THIS BILL

For taxable years beginning on or after January 1, 2001 and before January 1, 2005, this bill would create a credit for all taxpayers equal to 100% of the costs of a hot water recirculating system made operational with a qualified plumbing fixture. The system must be installed as part of new construction or renovation or remodel. A "hot water recirculating system" would mean a system of pipes with a motor driven pump that recirculates water between a water heater and hot water faucets.

A recirculating system enables substantially all of the cold water in the hot water pipes to be continually returned to the water heater and reheated before the hot water faucet is turned on.

A "qualified plumbing fixture" would include:

- Ultra low-flow toilets with a minimum tank size and flush capacity of one and one-half gallons.
- Low-flow shower heads (maximum flow of 2.5 gallons per minute).
- Hot water faucets with more than 10 feet of pipe connecting the faucets to the hot water heater.

"New construction" would be defined as the:

- Construction of a new structure:
- Addition to a preexisting structure; or
- Renovation or remodeling of a preexisting structure, but only with respect to the portion of the preexisting structure being renovated or remodeled.

Any unused credit would be allowed to be carried over and used in future years.

## IMPLEMENTATION CONSIDERATIONS

It is unclear if the hot water pipe typically installed in structures would be part of the hot water recirculation system.

In order to avoid confusion, a threshold description or amount is needed for the terms "renovated" and "remodeled."

The bill would require a hot water recirculating system to be operational with a qualified plumbing fixture. One of the qualified fixtures specified by the bill is a low-flow toilet. It is unclear how a low-flow toilet is operational with hot water

## TECHNICAL CONSIDERATIONS

The bill defines an ultra low-flow toilet with a minimum tank size and flush capacity. However, it appears the maximum tank size and flush capacity is actually being stated.

## **BACKGROUND**

The basic principle of the hot and cold water system in common use today is to keep hot water in the pipes near the faucets where it is used. This eliminates waste by eliminating the need to run the cold water out of the hot water pipes and down the drain.

The California Energy Commission (CEC) in its "Residential Manual for Compliance with the 1998 Energy Standards" requires that most hot water recirculation systems be counted as an energy user, not as an energy saver. In determining if a residential structure meets the minimum energy efficiency standards, hot water recirculating systems that do not have a demand control device or both a time and a temperature control device are assigned a penalty.

## OTHER STATES' INFORMATION

Florida and Illinois: Do not have any credits based on energy conservation.

**Massachusetts:** Currently has an energy credit that is equal to 15% of the net expenditures or \$1,000, whichever is less.

**Michigan:** Does not allow an energy-related credit, but exempts the value of energy conservation devices from the local property tax.

**New York:** For personal income taxpayers only, New York allows a credit for solar generating equipment equal to 25% of certain solar generating expenditures. The credit is capped at \$3,700 per system.

The laws of these states were reviewed because their tax laws are similar to California's income tax laws.

#### FISCAL IMPACT

Based on the data and assumptions below, revenue losses are estimated as follows:

Estimated Revenue Impact*					
Taxable Years Beginning On or After					
January 1, 2001					
Enactment Assumed After					
June 30, 2001					
Fiscal Years					
(In Millions)					
	2001-2	2002-3	2003-4		
Hot Water					
Recirculation	-\$33	-\$54	-\$73		
Systems					
Credit					

It is assumed the intent of the proposal is to limit qualified systems to installations in California.

This analysis does not consider the possible changes in employment, personal income, or gross state product that could result from this measure.

The impact of this bill would depend upon the number and type of taxpayers installing these systems, the average credit claimed, and the average credit applied against tax liabilities.

It is projected that in California for 2001, approximately 115,000 single-family residences will be renovated or remodeled with an additional 115,000 new homes being started. Of these, 12,000 single-family home renovations are expected to qualify for this credit at an average system cost of \$350. It is also anticipated that 12,000 new homes will qualify for this credit. Systems installed in new homes are more apt to include a third pipe, dedicated to the return of hot water to the water heater, since the installation of the pipe does not require extensive renovation as it would in existing homes. The systems installed in new homes are projected to cost approximately \$800, an average cost of various system types.

The number of multifamily residences projected to be built in California in 2001 is 43,234. It is expected that approximately 4000 of these residences will have systems installed at an average cost of \$800 per system. It is also expected that an additional 4,000 retrofit systems will be installed in multifamily residence renovations or remodels at an average cost of \$350 each. Five units is the projected number of units per each multifamily residence.

Applications for industrial and commercial usages of hot water recirculation systems include hotels, hospitals, hair salons, ships, and machinery and tool manufacturers. The commercial and industrial systems can employ larger, more sophisticated systems and/or a vast number of systems for one business. Data pertaining to the cost, current usage, and potential growth rates for the industrial and commercial systems is not readily available as it is for residential applications. Due to the number and expense of these types of systems, the projected revenue loss was conservatively estimated at 50 percent of the total residential revenue loss.

The projected incentive effect for purchases of hot water recirculation systems associated with the proposed 100% credit ranges from 10% in 2001 to 25% in 2004. Less than one percent of new California homes are now equipped with hot water recirculation systems.

Estimates were developed in coordination with building industry experts at the California Building Industry Association, water usage experts at various California irrigation districts, representatives of hot water recirculation systems manufacturers, and information from various government agencies.

#### LEGISLATIVE HISTORY

AB 873 Takasugi (1997/1998) would have allowed a credit equal to 40% of the cost of energy conservation measures. The bill failed to pass the Assembly Revenue and Taxation Committee. The bill also would have allowed a second credit equal to 10% of the cost of a solar energy system installed on premises located in California and used for commercial purposes, subject to certain requirements.

#### ARGUMENTS/POLICY CONCERNS

The credit would be allowed for hot water recirculation system expenses paid or incurred with respect to property located either inside or outside California.

This bill provides for a credit equal to 100% of the amount paid or incurred during the taxable year. Such a credit is unprecedented. The bill doesn't provide a maximum credit amount. A 100% credit tends to lead to inflated prices. This is especially true when there is no credit cap.

The bill does not state that the credit is in lieu of any other deduction, meaning that taxpayers are not prohibited from deducting the costs incurred to install the system, where such costs are otherwise deductible.

The bill does not limit the number of years the credit can be carried over. Credits are generally used within eight years.

The bill does not establish a minimum life for the system and/or a recapture mechanism in the event the system does not satisfy the minimum life requirement.

## LEGISLATIVE STAFF CONTACT

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